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## 12. Emergency Response, Occurrence Reporting, and Incident Analysis

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### 12.1 Emergency Response

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#### **LLNL Emergency Personnel**

LLNL maintains a large staff of emergency response personnel, including a Fire Department, Protective Service Officers, a fully staffed medical facility, and ambulatory services.

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#### **Emergency Phone Numbers**

The telephone number for LLNL's emergency dispatch is 911 and is posted on each telephone at LLNL and Site 300. The Hazards Control telephone number is posted throughout LLNL and Site 300 facilities.

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#### **Emergency Communications**

There is an onsite communications system specifically for emergency control purposes. It consists of:

- A continuously operated emergency dispatch center for receiving and relaying emergency information
  - Reserved telephone lines for reporting emergencies from any onsite telephone to the Emergency Dispatcher
  - An automatic signal at the Emergency Dispatch Center to indicate when a local warning system has been activated
  - An automatic signal at the Emergency Dispatch Center that indicates when a fire-protection system has been activated
  - Systems for notifying emergency response personnel in an emergency
  - An emergency Public Address system to relay vital information and instructions to LLNL personnel.
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#### **Emergency Response Groups**

During an emergency, an LLNL emergency dispatcher (Main Site) or a Protective Services dispatcher (Site 300) uses reserved telephone lines to promptly relay emergency information to the following emergency response groups:

- LLNL Fire Department
- LLNL Security Department
- Hazards Control Safety Team

- Plant Engineering
- Medical facility personnel.

Personnel from these organizations go to the scene of emergencies.

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**Who's in Charge  
at the Emergency  
Scene**

At the emergency scene, the Senior Fire Officer is the Incident Commander and coordinates the response of other departments. The Laboratory Emergency Duty Officer (LEDO) is the Crisis Manager who coordinates LLNL's emergency activities with outside agencies. (The LEDO is always a senior management representative who is on-call to the emergency response organization.) Other departments perform support services as requested by the Incident Commander.

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**LLNL Fire  
Department**

The LLNL Fire Department and other personnel respond to emergencies and incidents involving fires and spills of hazardous materials, substances, and wastes.

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**Protective  
Services Officers**

Protective Services Officers control traffic, guard the scene, and perform other tasks requested by the Incident Commander.

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**Hazards Control  
Safety Team**

The Hazards Control Safety Team provides guidance on hazards and their control methods and proceeds with control measures as directed.

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**The Role of  
Hazards Control  
at an Emergency  
Scene**

To assist line management, Hazards Control Safety Teams secure the incident scene to preserve accident conditions while line management notifies the proper organizations and agencies and assembles the Incident Analysis Team.

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**Self-Help Zones  
and the Zone  
Supervisor**

The Laboratory is divided into approximately 15 self-help zones. Managers are required to develop self-help plans to be effected during these emergencies. A Zone Supervisor for each zone coordinates and manages emergency activities within that zone.

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**Assembly Points  
and Assembly  
Point Leaders**

Within each zone, pre-designated assembly areas have been established where Assembly Point Leaders take local control for ensuring the safety of personnel and facilities.

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**Periodic  
Emergency  
Exercises**

To ensure that all LLNL personnel know what to do in the case of an emergency, emergency exercises are conducted periodically.

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**Laboratory  
Emergency  
Preparedness  
Plan**

The *Laboratory Emergency Preparedness Plan* addresses actions for handling large-scale emergencies, such as earthquakes and other natural disasters, that might overtax the Emergency Response Team. LLNL's emergency response program is also detailed in the *LLNL Health and Safety Manual*, Chapter 3, "Emergency Control," and the LLNL Fire Department's *Procedures Manual*.

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## 12.2 Occurrence Reporting

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**Sources for  
Occurrence  
Reporting**

LLNL procedures for occurrence reporting and incident analysis comply with DOE Order 232.1. They are documented in LLNL implementing procedures and the *LLNL Health and Safety Manual*, Supplement 4.08, "Incident Analysis Manual." These occurrence reporting procedures are summarized below.

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**Occurrence  
Reporting  
Procedure**

After an incident occurs, employees must notify their line managers. Line managers gather preliminary information related to the event or condition and notify higher line management. Line managers also interface with the appropriate organizations to categorize the occurrence in sufficient time to meet DOE requirements.

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**Role of the LLNL  
Occurrence  
Reporting Office**

The Laboratory Occurrence Reporting Office of the Laboratory Emergency Preparedness and Response Program assists line management to categorize occurrences, assigns occurrence report numbers, works with the LEDO in making initial or follow-up verbal occurrence reports, and assists line management in submitting three occurrence reports: initial, 10-working-days, and final written occurrence reports.

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## 12.3 Categories of Incidents

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### Three Categories of Incidents

There are three category classifications of occurrences which require prompt reporting to DOE:

- Emergency
- Unusual Occurrence
- Off-normal Occurrence.

LLNL implementing procedures for DOE Order 232.1 and the LLNL *Emergency Preparedness Plan* list Emergency Action Levels, which define classifications of emergencies (in accordance with the provisions of DOE Order 5500.2A) that are to be categorized as emergency occurrences in compliance with DOE Order 232.1.

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### Process of Categorizing Reportable Incidents

Line management is responsible for ensuring that a categorization of reportable occurrence is made within two hours. Line management also contacts the LEDO as soon as the reportable occurrence is identified.

The LEDO notifies DOE Facility Representative and DOE Headquarters as appropriate. The LEDO then alerts the DOE-OAK Laboratory Operations Division Duty Officer.

If there is time, the DOE-OAK Laboratory Operations Division assists line management in the occurrence categorization. As soon as categorization has been made, line management contacts the LEDO with the information necessary to make the initial verbal notification.

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### Verbal Notification

Once an occurrence is categorized, the LEDO notifies the following organizations within the time periods indicated:

#### Emergency

- The DOE Headquarters Emergency Operations Center and the DOE-OAK Laboratory Operations Division Officer are called within 15 minutes.
- The LLNL Director's Office is notified as soon as possible.

### Unusual Occurrence

- The DOE Headquarters Emergency Operations Center and the DOE-OAK Laboratory Operations Division Officer are called within two hours.
- The LLNL Director's Office is notified as soon as possible.

### Off-normal Occurrence

- No telephone notification is required. However, the DOE-OAK Laboratory Operations Division Officer and the LLNL Director's Office should be informed that an Off-normal Occurrence has been categorized and that a 24-hour written report will be submitted.

In all cases, the Laboratory Occurrence Reporting Office is notified as soon as practical after the required verbal notifications have been made.

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#### **Follow-up Verbal Notification**

In addition to the initial verbal notification, the LEDO also makes follow-up notification to DOE and the DOE-OAK Laboratory Operations Division Duty Officer for any of the following:

- Any further degradation in the level of safety or other worsening conditions.
  - Any conditions requiring the declaration of emergency at any of three classification levels, if such a declaration has not been made.
  - Any change from one emergency classification to another.
  - Termination of an emergency.
- 

#### **Initial Notification Reports**

Line management is responsible for ensuring that an **initial** written notification **report** is submitted within the time frame specified below:

- Emergency—As soon as possible following categorization but within 24 hours.
  - Unusual Occurrence—Within 24 hours.
  - Off-normal Occurrence—Within 24 hours or the next working day.
- 

#### **Subsequent Written Reports**

Line management is responsible for two subsequent written reports—a 10-working-days report and a final report. All reports must conform to the Occurrence Report format and instructions delineated in LLNL implementing procedures for DOE Order 232.1. Occurrence Reports must be signed by the cognizant Associate Director or his designee.

The **10-working-days report** includes information provided by the DOE-OAK Laboratory Operations Division as well as up-to-date information relating to the root cause, significance, nature, and extent of the event; and corrective and preventative actions.

The **final report** is submitted when the cause of the occurrence has been analyzed, root cause and contributing causes determined, corrective actions determined, and lessons learned identified.



In addition, if significant new information becomes available, line management must submit an **updated report**.

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## 12.4 Incident Analysis

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### Assembling the Incident Analysis Team

An Incident Analysis Team is assembled whenever the incident or accident conforms to parameters identified in the *LLNL Health and Safety Manual*, Supplement 4.08, “Incident Analysis Manual.” Team appointment is made as soon as possible, in writing, and identifies the scope of the investigation. Normally, an Incident Analysis Team is appointed by the line Department Head (or higher level of management) in whose area the incident has occurred or for whom the injured person worked.

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### The Role of the Incident Analysis Team

The Incident Analysis Team conducts its investigation and submits a written report to line management in accordance with the guidelines described in the “Incident Analysis Manual.” Line management reviews the report, formulates and prepares a written plan of corrective action, forwards the plan to the appropriate organizations, and corrects any deficiencies noted in the report.

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### Types of Investigative Boards

The type of investigating board that is required by DOE Order 5484.1 is summarized below:

1. Type A—Boards are appointed by DOE, contain only DOE or other federal employees, and operate under DOE-prescribed procedures.
  2. Type B—Boards are appointed by DOE, may contain either DOE employees or DOE-contractor employees, and operate under DOE-prescribed procedures
  3. Type C—Incident Analysis Teams are appointed by Laboratory management and operate under the guidance of *LLNL Health and Safety Manual*, Supplement 4.08.
- 

### Incident Analysis Manual

The *LLNL Health and Safety Manual*, Supplement 4.08, “Incident Analysis Manual,” describes the procedure for investigating incidents and documenting recommendations to avoid similar occurrences. (A summary

of DOE requirements for accident notification, investigation, and reporting is in Appendix A of the “Incident Analysis Manual.”)

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## 12.5 Categories of Spills and Emergencies

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### **LLNL Policy on Spills and Emergency Response**

Spill and emergency response must protect human health and safety and the environment.

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### **Definition: “Small” Emergency**

LLNL separates spills and emergencies into two categories: “small” and “large.” LLNL personnel may clean up small spills or respond to minor emergencies, including small fires. A small spill or emergency is defined as (1) the release of material whose nature and potential hazards are known; (2) the release presents no actual or potential threat to human health or safety or the environment; (3) the spill can be cleaned up by one or two people in less than one hour; and (4) the release results in no more than minor injury requiring simple first aid.

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### **Definition: “Large” Emergency**

A large spill involves (1) potential contamination of soil or groundwater; or (2) a fire or an explosion. A large spill or major emergency is (1) unsafe to manage without Fire Department assistance; (2) type of material released is unknown; (3) it cannot be cleaned up by two people in less than one hour; (4) injuries require more than simple first aid; and (5) the release migrates to the soil, stormwater, or the sanitary sewer system.

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## 12.6 Spills and Minor Emergency Response

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The following spill/fire responses are intended only for eight types of emergencies. Each individual response procedure is further subdivided into a health hazard precaution, fire-fighting procedures, spill-response procedures, and proper protective equipment.

**Note: Employees who are uncertain about their ability to safely manage a spill or fire should dial 911 immediately for help.**

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### **Acids**

Hazards: Vapors from acids may be irritating and can cause severe burns

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to skin, eyes, and mucous membranes.

Fire: Some acids are flammable.

Cleaning up Small Acid Spills: DO NOT ATTEMPT TO CLEAN UP AN ACID SPILL GREATER THAN 1 GALLON.

1. For acid spills of less than 1 gallon, use an absorbent material to pick up the spilled liquid acid. Do not use towels or rags because spontaneous ignition could occur.
2. Neutralize residual acid by sprinkling the area with sodium carbonate (soda) and enough water to make a slurry.
3. Allow the slurry of sodium carbonate and water to sit until the addition of fresh sodium carbonate produces no further foaming.
4. Use absorbent material to pick up neutralized acid for disposal with the following exception: If the spill contains hydrofluoric acid, use gypsum (calcium sulfate) to absorb the spill. Do not use the usual absorbent material to clean up a spill of hydrofluoric acid because silicates react with hydrofluoric acid to produce silicon tetrafluoride, a corrosive gas.
5. Wash the spill area with soap and water.
6. Dispose of your contaminated clothing and absorbent material as hazardous waste.

Cleaning up Large Acid Spills:

1. Leave the immediate area. Contact the LLNL Fire Department at 911.
2. Cordon off the area to personnel and vehicular traffic until the Fire Department arrives.
3. If possible, use absorbent material, rags, or towels to contain the spill, but proceed with extreme caution.

Personal Protection:

- Avoid contact with the acid and stand upwind.
- Wear neoprene or Silver Shield gloves, a full-face respirator with acid/organic vapor cartridges, and other equipment to prevent acid contacting with the body.
- If acid contacts the skin, remove contaminated clothing, and flood the skin with water. Wash affected skin thoroughly with soap and water.

- If acid comes in contact with the eyes, hold the eyes open, and flush with water. Seek medical attention.
  - Any contact or exposure to hydrofluoric acid should be immediately treated by Health Services.
- 

### **Aqueous Hazardous Materials**

Hazard: Vapors from aqueous hazardous materials may be irritating.

Fire: Aqueous materials are nonflammable.

Cleaning up Small Spills of Aqueous Hazardous Materials: DO NOT ATTEMPT TO CLEAN UP A SPILL GREATER THAN 1 GALLON.

1. For spills of less than 1 gallon, absorb the liquid spill using absorbent materials.
2. Wash the spill area with soap and water.
3. Dispose of contaminated clothing and the absorbent material as hazardous waste.

Cleaning up Large Spills of Aqueous Hazardous Materials:

1. Leave the immediate area, and contact the LLNL Fire Department at 911.
2. Cordon off the area to personnel and vehicular traffic until the Fire Department arrives.
3. If possible, use absorbent material, rags, or towels to contain the spill, but proceed with extreme caution.

Personal Protection:

- Avoid contact with the waste and stand upwind.
  - Wear neoprene, Silver Shield, or butyl rubber gloves; a full-face respirator with combination acid gas/organic vapor cartridges; and other equipment to prevent contact with the body.
  - If an aqueous hazardous substance comes in contact with the skin, remove all contaminated clothing, and flood the skin with water. Wash all affected skin thoroughly with soap and water.
  - If an aqueous hazardous substance comes in contact with the eyes, hold the eyes open, and flush with water.
  - Seek immediate medical attention.
- 

### **Caustics**

Hazards: Caustics can cause severe burns to eyes, skin, and mucous

membranes.

Fire: Caustics are nonflammable.

Cleaning up Small Spills of Caustics: DO NOT ATTEMPT TO CLEAN UP A SPILL GREATER THAN 1 GALLON.

1. For spills of less than 1 gallon, use absorbent material to pick up the liquid spill.
2. Wash the spill area with soap and water.
3. Dispose of your contaminated clothing and the absorbent material as hazardous waste.

Cleaning up Large Spills of Caustics:

1. Leave the immediate area, and contact the LLNL Fire Department at 911.
2. Cordon off the area to personnel and vehicular traffic until the Fire Department arrives.
3. If possible, use absorbent material, rags, or towels to contain the spill, but proceed with extreme caution.

Personal Protection:

- Avoid contact with the waste and stand upwind.
  - Wear neoprene or Silver Shield gloves, a full-face respirator with combination acid gas/organic vapor cartridges, and other equipment to prevent contact with the body.
  - If caustics come in contact with the skin, remove all contaminated clothing, and flood the skin with water.
  - If caustics come in contact with the eyes, hold the eyes open, and flush with water.
  - Seek medical attention.
- 

## **Flammable Liquids**

Hazards: Vapors from flammable liquids can cause dizziness and narcosis. Flammable liquids can be absorbed through the skin.

Fire: Extinguish fires of flammable liquids with a dry chemical, carbon dioxide, or Halon fire extinguisher. Be aware that such fires may appear to be extinguished, but a flashback may occur along the vapor trail and re-ignite it. Water may be ineffective on this type of fire. Water spray may be useful in knocking down vapors.

Cleaning up Small Spills of Flammable Liquids: DO NOT ATTEMPT TO CLEAN UP A SPILL GREATER THAN 1 GALLON.

1. For spills of less than 1 gallon, remove all sources of ignition.
2. Use absorbent materials, rags, or towels to absorb the liquid.
3. Seal your contaminated clothing and the absorbent material in a vapor-tight container for eventual disposal as hazardous waste.

Cleaning up Large Spills of Flammable Liquids:

1. Contact the LLNL Fire Department at 911.
2. Cordon off the area to personnel and vehicular traffic until the Fire Department arrives.
3. If possible, use absorbent material, rags, or towels to contain the spill, but proceed with extreme caution.

Personal Protection:

- Avoid contact with the waste and stand upwind.
  - Wear Silver Shield or butyl rubber gloves, and a full-face respirator with other equipment to prevent contact with the body.
  - If a flammable liquid comes in contact with the skin, remove all contaminated clothing, and flood the skin with water. Wash all affected areas thoroughly with soap and water.
  - If a flammable liquid comes in contact with the eyes, hold the eyes open, and flush with water.
  - Seek medical attention.
- 

**Flammable Solids**

Hazards: Metal hydrides cause severe caustic burns. These compounds may be extremely toxic.

Fire: Extinguish fires with Metal-X or similar solid fire extinguisher. Do not use carbon dioxide, Halon, or water as a violent reaction may occur.

Spills of Flammable Solids: DO NOT ATTEMPT TO CLEAN UP A SPILLS OF THIS MATERIAL.

1. Leave the immediate area, and contact the LLNL Fire Department at 911.
2. Cordon off the area to personnel and vehicular traffic until the Fire Department arrives.

Personal Protection: DO NOT ATTEMPT TO CLEAN UP THESE MATERIALS.

- If flammable solids come in contact with the skin, remove all contaminated clothing, and flood the skin with water. Wash all affected areas thoroughly with soap and water.
  - If flammable solids come in contact with the eyes, hold the eyes open, and flush with water.
  - Seek medical attention.
- 

## **Oxidizers**

Hazards: Vapors from oxidizers may be irritating. Oxidizers can cause severe burns to skin, eyes, and mucous membranes. Contact with chronic acid may result in slow-healing sores.

Fire: Oxidizer compounds are not flammable by themselves, but their presence can intensify adjacent fires or cause spontaneous ignition upon contact with organic materials. Use the type of fire extinguisher appropriate for the type of adjacent burning material.

Cleaning up Small Spills of Oxidizers: DO NOT ATTEMPT TO CLEAN UP A SPILL GREATER THAN 1 GALLON.

1. For spills of less than 1 gallon, use absorbent material to pick up the liquid spill. Do not use towels or rags because spontaneous ignition could occur.
2. Have your contaminated clothing and the absorbent material evaluated by the Safety Team. The clothing and the absorbent material may be disposed of as hazardous waste.
3. Dilute the spill with an equal volume of water.
4. Check the pH and proceed according to the pH results.  
If the oxidizer is acidic, neutralize residual acid by sprinkling the area with sodium carbonate (soda) and enough water to make a slurry.
5. Allow the slurry of sodium carbonate and water to sit until the addition of fresh sodium carbonate produces no further foaming.
6. Use absorbent material to pick up neutralized acid.
7. For caustics, use absorbent material to pick up the liquid spill.
8. Prevent the spill from reaching and mixing with organic materials.
9. For either acid or caustic, wash the spill area with soap and water.

Cleaning up Large Spills of Oxidizers:

1. Leave the immediate area, and contact the LLNL Fire Department at 911.
2. Cordon off the area to personnel and vehicular traffic until the Fire Department arrives.

3. If possible, use absorbent material, rags, or towels to contain the spill, but proceed with extreme caution.

Personal Protection:

- Avoid contact with the waste and stand upwind.
  - Wear neoprene or Silver Shield gloves, a full-face respirator with combination acid gas/organic vapor cartridges, and other equipment to prevent contact with the body.
  - If oxidizers come in contact with the skin, remove all contaminated clothing, and flood the skin with water.
  - If oxidizers come in contact with the eyes, hold the eyes open, and flush with water.
  - Seek medical attention.
- 

**Other Toxic  
Materials**

Hazards: Other toxic materials may be poisonous.

Fire: Extinguish fires of other toxic materials with a dry chemical, carbon dioxide, or Halon fire extinguisher.

Spills of Other Toxic Materials: DO NOT ATTEMPT TO CLEAN UP SPILLS OF THIS MATERIAL.

1. Leave the contaminated area, and contact the LLNL Fire Department at 911.
2. Cordon off the area to personnel and to vehicular traffic until the Fire Department arrives.

Personal Protection: DO NOT ATTEMPT TO CLEAN UP THESE MATERIALS.

- If toxic materials come into contact with the skin, remove all contaminated clothing, and flood the skin with water. Wash all affected areas thoroughly with soap and water.
  - If other toxic material comes in contact with the eyes, hold the eyes open, and flush with water.
  - Seek medical attention.
- 

**PCB-  
Contaminated  
Materials**

Hazards: PCBs and PCB-contaminated materials (e.g., waste oil from electrical transformers and other equipment) are poisonous and may be carcinogenic.

Fire: Extinguish fires with a dry chemical, carbon dioxide, or Halon fire extinguisher. Water may be ineffective on this type of fire.



Cleaning up Small Spills of PCBs: DO NOT ATTEMPT TO CLEAN UP A SPILL GREATER THAN 1 QUART.

1. For spills of less than 1 quart, FIRST REMOVE ALL SOURCES OF IGNITION.
2. Then use absorbent material, rags, or towels to absorb the liquid.
3. Wash any surfaces contaminated with PCBs with a strong soap-and-water solution.
4. Seal your contaminated clothing and absorbent material in a vapor-tight container for eventual disposal as hazardous waste.
5. Allow an Environmental Analyst to inspect the area before resuming activities. **Note:** All spill sites must be sampled after cleanup.

Cleaning up Large Spills of PCBs:

1. Leave the immediate area, and contact the LLNL Fire Department at 911.
2. Cordon off the area to personnel and vehicular traffic until the Fire Department arrives.
3. If possible, use absorbent material, rags, or towels to contain the spill, but proceed with extreme caution.

Personal Protection:

- Avoid contact with the waste and upwind.
  - Wear Viton gloves or equivalent, full-face respirator with organic vapor cartridges, and other equipment to prevent body contact.
  - If PCB-contaminated materials come in contact with the skin, remove all contaminated clothing, and flood the skin with water. Wash all affected areas thoroughly with soap and water.
  - If PCB-contaminated materials come in contact with the eyes, hold the eyes open and flush with water.
  - Seek medical attention.
- 

**Radioactive  
Materials**

Fire: Do not attempt to extinguish any fires containing radioactive materials. Call the LLNL Fire Department at 911 immediately.

Spills: DO NOT ATTEMPT TO CLEAN UP A RADIOACTIVE SPILL.

Personal Protection: Do not attempt to clean up these materials. Wait for the Fire Department and avoid spreading contamination.

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**Unidentified  
Hazardous  
Materials**

Hazards: Because the hazard is unknown, all hazards are possible.

Fire: Do not attempt to put out fires containing unknown materials.

Spills: DO NOT ATTEMPT TO CLEAN UP A SPILL OF AN UNIDENTIFIED MATERIAL.

1. Leave the contaminated area, and contact the LLNL Fire Department at 911.
2. Cordon off the area to personnel and to vehicular traffic until the Fire Department arrives.
3. Contact any personnel who may have knowledge of the material.

Personal Protection:

- Avoid contact with the waste and stand upwind.
  - Wear neoprene or butyl rubber gloves, a full-face respirator with combination acid gas/organic vapor cartridges, and other protective equipment to prevent contact with the body.
  - If an unidentified hazardous material comes in contact with the skin, remove all contaminated clothing, and flood the skin with water. Wash all affected areas thoroughly with soap and water.
  - If an unidentified hazardous material comes in contact with the eyes, hold the eyes open and flush with water. Seek medical attention.
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## **12.7 Vehicular Accidents and Emergencies Where Explosive Materials Are Present**

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**Emergencies**

In the event of a fire or accident involving a vehicle carrying explosives off-site, the “Special Instructions For Motor Vehicle Drivers” must be followed.

In the event of a fire or accident involving a vehicle carrying explosives on-site, notify the Emergency Control Personnel as soon as possible by radio or telephone, Extension 33 (Site 300) or Extension 2-7333 (Livermore) and adhere to the following procedures as appropriate.

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**For a Vehicle  
Accident with  
Spilled  
Explosives and  
No Fire**

If you are involved in an vehicular accident where explosives are spilled but there is no fire:

- Shut off ignition of the vehicles involved.
  - **Do NOT smoke** or use highway flares within 50 ft of vehicles or the explosives.
  - Set up road warnings using signs or available personnel.
  - Give aid and assistance to any injured people.
  - Prevent people and vehicles from moving through spilled explosives. Close a lane or the entire roadway as required.
  - Avoid rough handling of explosives containers.
  - Gather any spilled explosives, place them in an isolated spot away from people and vehicles, and identify the explosives by any available method.
  - In the event of a time delay in obtaining another vehicle, the person responsible for the explosives may do the following if the damaged vehicle creates a hazardous situation:
    - Remove the explosives from the damaged truck and carry them to an isolated, safe location.
    - Block off the area around the explosives, and identify the explosives with signs.
    - Have the damaged vehicle removed.
- 

**For a Vehicle Fire  
or Accident with  
Fire**

If you are involved in an vehicular fire or an accident where explosives are present:

- Act promptly to extinguish electrical fires in the motor compartment if it can be done with minimum risk.
  - If the fire is outside the motor compartment involves fuel or rear tires, or if the fire is threatening the explosives cargo, evacuate all personnel to the appropriate distance specified in Table 1 of *LLNL Health and Safety Manual*, Supplement 24.30. If the table is not available, evacuate to a distance of 2,000 ft. **DO NOT ATTEMPT TO FIGHT THIS FIRE.**
  - Give all available information concerning the weight and types of explosives involved to responding emergency personnel.
-

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**For an Accident  
with No Fire and  
No Spill**

If you are involved in an vehicular accident where explosives are present, but there is no fire and no spill of explosives:

- Shut off the ignition of the vehicles involved.
  - **Do NOT smoke** or use highway flares within 50 ft of explosives-carrying vehicle.
  - If any containers are broken or are leaking, treat as described above for a vehicle accident with spilled explosives.
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